

XXVIII.—Notes on some Chalcidites and Cynipites in the Collection of the Rev. F. W. Hope. By FRANCIS WALKER, F.L.S.

THE species in the following list belong to a collection which the Rev. F. W. Hope received from Austria, and kindly allowed me to inspect.

Chalcis emarginata, Fabr. ? Brazil = *Chalcis punctata*, Fabr.
— *conica*, Fabr., Brazil.

Body black, thinly clothed with white hairs : head and thorax punctured : antennæ piceous : abdomen obclavate, smooth, shining, longer than the thorax ; the latter segments attenuate ; a spiracle visible on each side of the telum : legs yellow ; thighs black except their tips ; an interrupted and irregular black band around each tibia : wings limpid, not more than half the length of the body ; squamulæ yellow ; nervures pale brown. Length of the body $3\frac{1}{2}$ lines ; of the wings 4 lines.

Chalcis nana, Kollar, Austria = *Chalcis parvula*, De Laporte, Ent. Mag. ii. 32.

Eurytoma aspera, Kollar, Austria = *Eurytoma nodularis*, Boheman.

— *geniculata*, Kollar, Austria = *Isosoma angustatum*, Walker, Ent. Mag. i. 20.

— *signata*, Nees, Austria = *Decatoma Cooperi*, Curtis, Brit. Ent. 345 = *D. biguttata*, var.

— *Neesii*, Kollar, Austria = *Decatoma mellea*, Walker, Ent. Mag. i. 27.

Torymus Vivicellæ, Kollar, Austria = *Monodontomerus dentipes*, ♂ ?.

Dark bluish green : antennæ dark piceous, shorter than the thorax : abdomen dark cupreous, nearly fusiform, bluish green at the base ; metapodeon occupying nearly half the dorsum ; octoon very short ; ennaton much longer than the octoon ; decaton shorter than the ennaton ; protelum still shorter ; paratelum and telum very short : legs rusty red ; thighs mostly bluish green : wings slightly clouded, especially near the stigma ; nervures piceous. Length of the body $1\frac{1}{2}$ line ; of the wings $2\frac{1}{2}$ lines.

Torymus giganteus, Kollar, Austria.

This seems to be only a large variety of *Megastigmus dorsalis*.

Torymus cyaneus, Kollar, Austria = *Callimome ditto*.

Male and Female.—Bright blue varied with purple and green : antennæ black : sheaths of the oviduct longer than the abdomen : legs pale yellow ; thighs blue ; hind tibiæ piceous : wings limpid ; nervures fulvous. Length of the body $1\frac{1}{4}$ — $1\frac{1}{2}$ line ; of the wings 2— $2\frac{1}{2}$ lines.

Siphonura trochilus, Kollar, Austria, Istria, Sicily = *Ormyrus tubulosus* (*Cynips tubulosa*, Fonscolombe), Ent. Mag. ii. 161.

— *cyanosthetus*, Kollar, Austria.

Female.—Bright purple : head bluish green : antennæ black : ab-

domen bright green at the base, brassy at the tip, and having brassy bands across its back, less attenuated than that of *Ormyrus tubulosus*, but more so than that of *O. punctiger*: legs tawny; tarsi paler; thighs bluish green: wings limpid; nervures brown. Length of the body $2\frac{1}{2}$ lines; of the wings $2\frac{1}{2}$ lines.

Eucharis adscendens, Fabr., Austria.

— *cyniformis*, Latr., Austria.

Perilampus violaceus, Fabr., Austria.

— *auratus*? Nees, Austria = *Perilampus italicus*, Latr.

Encyrtus scutellaris, Dalman, Austria.

— *Lecaniorum*, Kollar, Austria = *Encyrtus Swederi*, Dalman.

— *punctipes*, Dalman, Austria.

— *Æsculi*, Kollar, Austria = *Encyrtus sericeus*, Dalman.

— *dasycerus*, Kollar, Austria = *Encyrtus Azalius*, Walker, Ent. Mag. iv. 457.

— *poduroides*, Kollar, Austria = *Encyrtus mirabilis* (*Cerapterocerus ditto*, Westwood).

— *erythrosthetus*, Kollar, Austria.

Head transverse, convex, finely punctured, as broad as the thorax, blue below, green in front, æneous above: eyes dark red: antennæ slender, subclavate, as long as the head and the thorax; first joint elliptical, black, much dilated, white at the tip, nearly as long as one-third of the whole antenna; second joint white, slender, linear, black above at the base; third and following joints to the eighth slender and linear, successively but slightly increasing in breadth and decreasing in length; third, fourth and fifth joints pale brown; sixth, seventh and eighth joints white; ninth, tenth and eleventh joints forming a fusiform black club as long as the two preceding joints: thorax æneous green and roughly punctured and clothed with white hairs above, pale orange, smooth and shining beneath and on each side: pectoral plates very large: abdomen short-elliptical, not so long as the thorax, black and flat above, pale orange at the tip and on the under side which is keeled: legs white; tarsi pale yellow; claws brown; middle legs slightly dilated as usual: wings limpid; squamulæ pale orange; nervures brown. Length of the body $\frac{3}{4}$ line; of the wings $1\frac{1}{2}$ line.

It has some resemblance to *Encyrtus sericeus*, but is rather narrower, and its colour and the structure of its antennæ at once distinguish it from that species.

Encyrtus stigma, Kollar, Austria.

Body broad and thick: head dark blue, transverse, short, convex, thinly punctured, purple in front, a little broader than the thorax: antennæ subclavate, slender, as long as the head and the thorax; first joint pale red, long and slender; second and following joints to the sixth rather short, pale brown, slightly hairy and successively decreasing in length; seventh and eighth joints short, white; ninth, tenth and eleventh joints forming a black elliptical club that is longer and broader than the two preceding joints: thorax brassy black,

roughly punctured above; scutellum blue towards the tip: abdomen brassy green, smooth, shining, obconical, flat above, slightly keeled beneath, not longer than the thorax: legs black; tarsi and tips of tibiæ pale red; middle legs having the tibiæ armed with long spines, and the tarsi much dilated: wings limpid; squamulæ pale red; nervures brown. Length of the body $\frac{3}{4}$ line; of the wings $1\frac{1}{2}$ line.

Encyrtus Eitelwienii, Ratzeburg, Austria = *Encyrtus flaminus*, Dalman.

— *graminis*, Kollar, Austria = *Encyrtus subplanus*, Dalman.

— *longicornis*, Kollar, Austria.

Female.—Body æneous, long and narrow: head and thorax convex, finely punctured, almost smooth: head transverse, dark green, hardly as broad as the thorax: eyes piceous: antennæ black, filiform, extremely slender, shorter than the body; first joint long and linear: thorax elliptical: prothorax very distinct above, narrower in front: abdomen fusiform, depressed above, keeled beneath, rather narrower and much longer than the body: oviduct pale red, projecting a little beyond the tips of the abdomen: legs long, pale tawny, slightly shaded with piceous: hind thighs brassy black; hind tibiæ dark piceous; tips of the tarsi piceous: wings limpid, of moderate size; squamulæ piceous; nervures brown. Length of the body $1\frac{1}{4}$ line; of the wings $1\frac{3}{4}$ line.

This species is allied to *Encyrtus Imandes* (Ent. Mag. iv. 449), but the latter has a different colour, and is less than half its size.

Encyrtus encopiformis, Kollar, Austria.

Body very broad and thick: head and thorax convex, dark bluish green: head transverse, short, a little broader than the thorax, roughly punctured: eyes dark red: antennæ clavate, slender, dull pale tawny, shaded with piceous, as long as the head and the thorax; first joint long, slender, linear; second and following joints short; club piceous, slightly truncate: thorax slightly punctured: prothorax just visible above; scutum of the mesothorax very short; scutellum with a slight longitudinal impression: abdomen dark brassy green, obconical, depressed above, not longer than the thorax: legs stout, brassy black; tarsi tawny, their tips piceous; middle tarsi much dilated: wings small, piceous, iridescent, thick, as if half coriaceous; nervures piceous; ulna and radius very short; cubitus longer than the ulna; stigma very small. Length of the body $\frac{3}{4}$ line; of the wings 1 line.

This insect is allied to *Eunotus cretaceus* (Ent. Mag. ii. 298), to *Encyrtus (Choreius) ineptus* (Dalman), and to *Epicopterus choreiformis* (Westwood, Mag. Nat. Hist. v. 418), and it resembles the last species in having a slight indentation on the fore border of the wing near the end of the humerus.

Encyrtus fallax, Kollar, Austria = *Encyrtus hemipterus*, Dalman.

— *atomon*, Kollar, Austria.

This beautiful little species seems to belong, or to be very nearly allied to, the genus *Tetrastichus*. The body is dark blue and rather

narrow: the head is red: the antennæ are white with black rings, setaceous and as long as the thorax: abdomen fusiform, attenuated towards the tip, longer than the thorax: legs pale yellow; tips of the tarsi black; a broad black band round each thigh: wings limpid, mottled with brown, very deeply fringed like those of *Thysanus* or of *Mymar*; nervures piceous. Length of the body $\frac{1}{2}$ line; of the wings 1 line.

Eulophus amethystinus, Kollar, Austria = *Entedon* (*Derostenus*) *gemmeus*, Westwood.

— *orbifer*, Kollar, Austria = *Euplectrus* (Westwood) *bicolor* Swederus.

— *Aceris*, Kollar, Austria = *Eulophus Orsinus*, Mon. Chal. i. 126.

Pteromalus Mesoleptorum, Kollar, Austria = *Pteromalus cavus*, Ent. Mag. ii. 477.

— *robustus*, Kollar, Austria.

This species is nearly allied to *Pteromalus latus*, 'Ent. Mag.' ii. 481, but it is larger and has longer and paler antennæ. Body æneous, broad and thick: head and thorax closely punctured: head large, broader than the thorax: antennæ tawny, subclavate, rather slender, as long as the thorax; tip of each joint piceous; first joint linear, long and slender; second cup-shaped; third and fourth very minute; fifth much longer; sixth and following to the tenth successively but very slightly decreasing in length; club conical, much longer than the tenth joint: thorax nearly obconical: prothorax short, slightly concave behind: sutures of the parapsides distinct: propodeon large, transverse, not furrowed: podeon very short: abdomen smooth, shining, broader than long, truncated towards the tip, rather narrower than the thorax, and less than half its length; metapodeon large; octoon and following segments very short: legs pale tawny, rather stout; hind thighs except their tips piceous; tarsi and tips of tibiæ of middle and hind legs pale straw-colour: wings limpid, of moderate size; squamulæ piceous; nervures brown; ulna hardly half the length of the humerus; radius as long as the ulna; cubitus much shorter than the radius; stigma small. Length of the body $1\frac{1}{4}$ line; of the wings $2\frac{1}{4}$ lines.

Eulophus Forsteri, Kollar, Austria.

This species seems to be a variety of *Tetrastichus Eurytus* (*Cirrospilus ditto*, Ann. Nat. Hist. ii. 202); its thorax is more overspread with yellow than that of the specimen there described.

Eulophus histrionicus, Kollar, Austria = *Tetrastichus Zeuxo* (*Cirrospilus ditto*, Mon. Chal. i. 194).

— *Perilithi*, Kollar, Austria = *Eulophus gallarum*, Nees.

— *signaticollis*, Kollar, Austrian Alps.

This insect, which is a female, belongs to the genus *Tetrastichus*; the oviduct and its sheaths project a little beyond the tip of the abdomen like those of some other species of that genus. It is very dark piceous or almost black; the antennæ are piceous: there are two parallel sutures along the back of the scutellum: the hinder part of

the scutum, the sutures of the parapsides, and the greater part of the paraptera and of the epimera are pale tawny; the sides and tip of the scutellum are also tawny; the abdomen is fusiform, very slender, much longer and narrower than the thorax; the oviduct is bright pale red; its sheaths are piceous, and about one-fourth of the length of the body: the legs are pale tawny: the wings are limpid, and when at rest they do not extend beyond the tip of the abdomen; the nervures are pale tawny. Length of the body $1\frac{3}{4}$ line; of the wings 2 lines.

Platygaster acuminatus, Kollar, Austria = *Pl. Olorus*, Ent. Mag. iii. 255.

— *siphon*, Forster, Austria = *Pl. elongatus*, Westwood.

Teleas pumilio, Nees, Austria = *Telenomus Turesis*? Ent. Mag. iii. 353.

— *Dipterorum*, Kollar, Austria = *Telenomus Phylis*, Ent. Mag. iii. 348.

— *alpinus*, Kollar, Austria = *Telenomus Alcon*? Ent. Mag. iii. 352.

Ibalia cultellator, Latr., Austria.

Cynips Calicis, Hartig, Austria.

— *Caput Medusæ*, Hartig, Austria.

— *folii*, Linn., Austria.

— *lucida*, Kollar, Austria.

— *tinctoria*, Hartig, Sicily.

— *Kollarii*, Hartig, Austria.

— *lignicola*, Hartig, Austria.

— *Hartigii*, Kollar, Austria.

— *radicis*, Hartig, Sweden.

All the above species of *Cynips* are females, and are nearly allied to each other, with the exception of *C. folii* which is a male, and may belong to a different group of the family.

Teras terminalis, Hartig, Austria.

— *spongiparus*, Kollar, Austria.

— *pedunculata*, Kollar, Italy.

— *Cerris*, Kollar ("an *Teras*"), Austria.

Of these four species of *Teras*, the first, second and third are common in England, and are perhaps only varieties of one species. The fourth differs from the rest in colour, being all black with tawny antennæ and legs.

Synergus socialis, Kollar, Austria.

Aylax Brandtii, Ratzeburg, Austria.

— *floricola*, Kollar, Austria.

Synophrus politus, Hartig, Austria.

Psilogaster tibialis, Hartig, Austria.

— *monilicornis*, Kollar, Austria.

Figites Urticeti, Dahlbom, Sweden.